

FIG. 1A
PRIOR ART

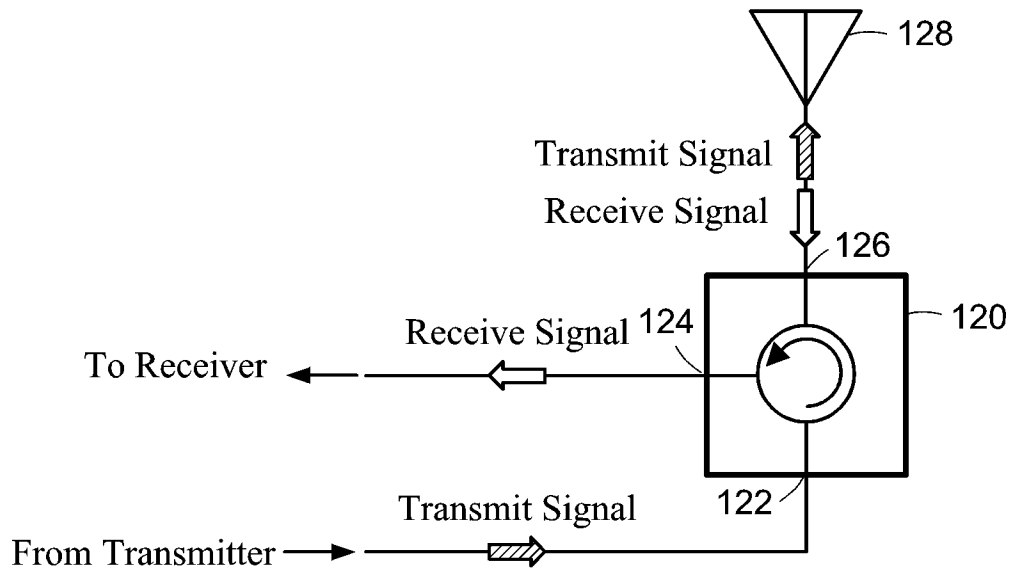


FIG. 1B
PRIOR ART

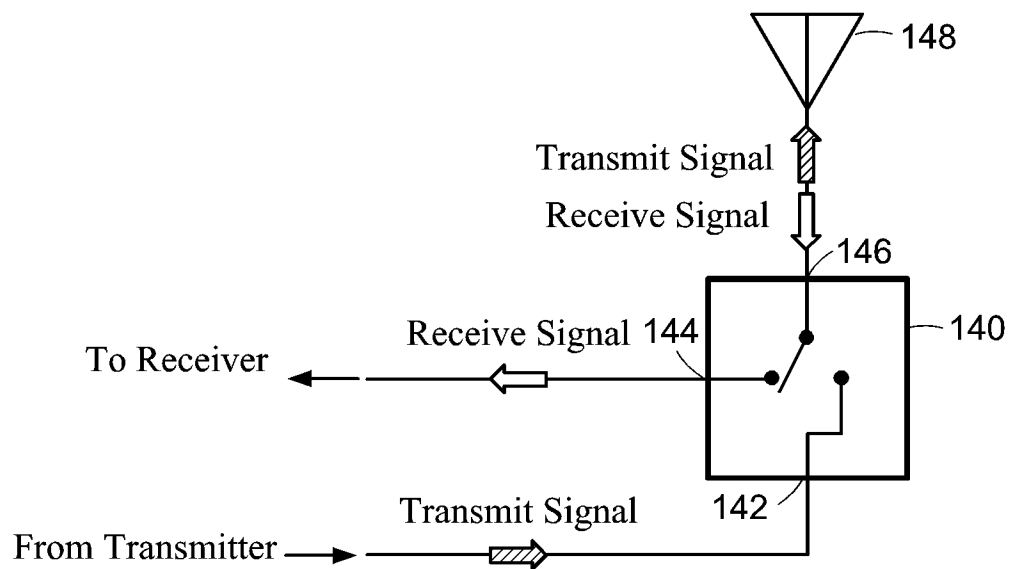


FIG. 1C
PRIOR ART

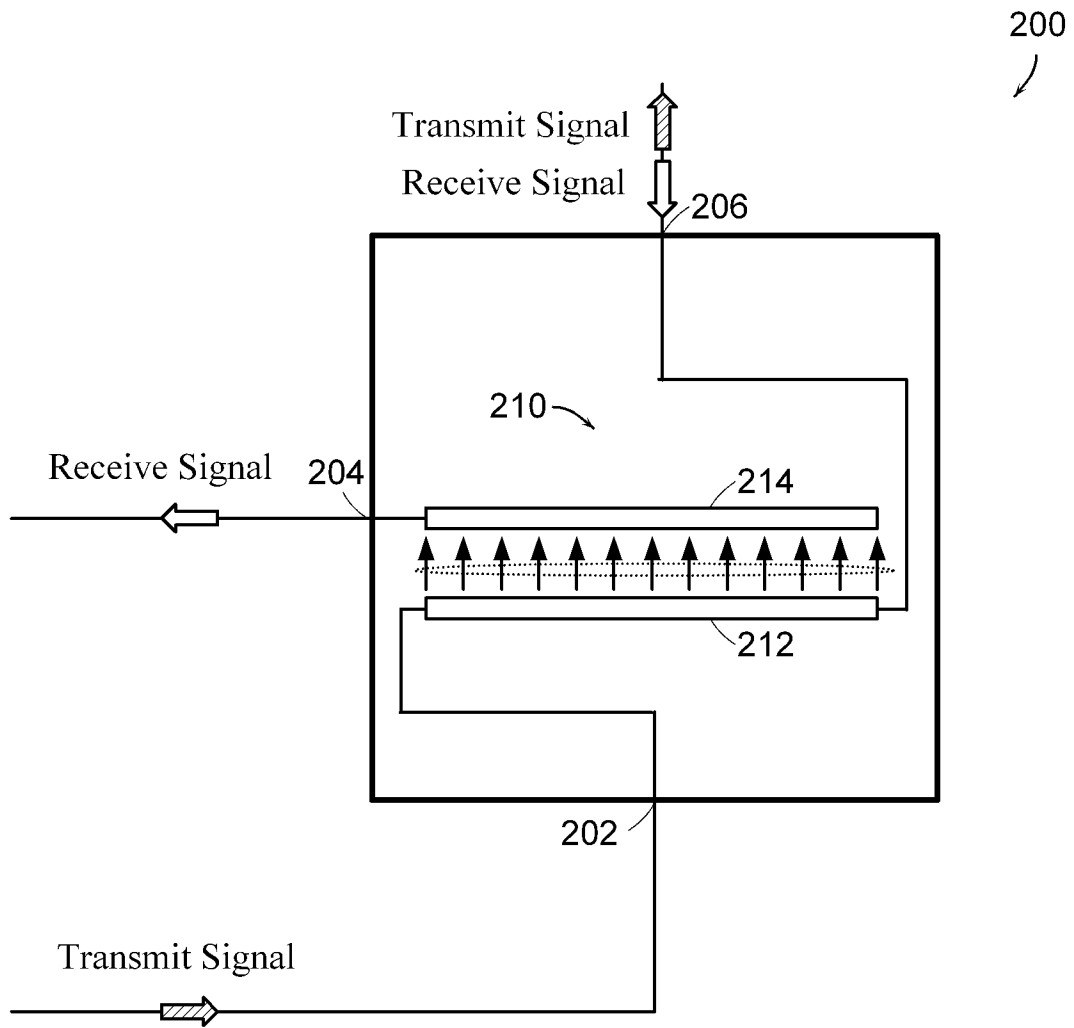


FIG. 2A

250 ↘

Port-to-Port Connection	Desired Coupling Efficiency	Mechanism
Input to bi-directional	High	Direct connection
Bi-directional to input	Do not care	
Output to bi-directional	Low	Non-reciprocal coupling
Bi-directional to output	High	
Input to output	Low	Traveling wave waveguides
Output to input	Low	

FIG. 2B

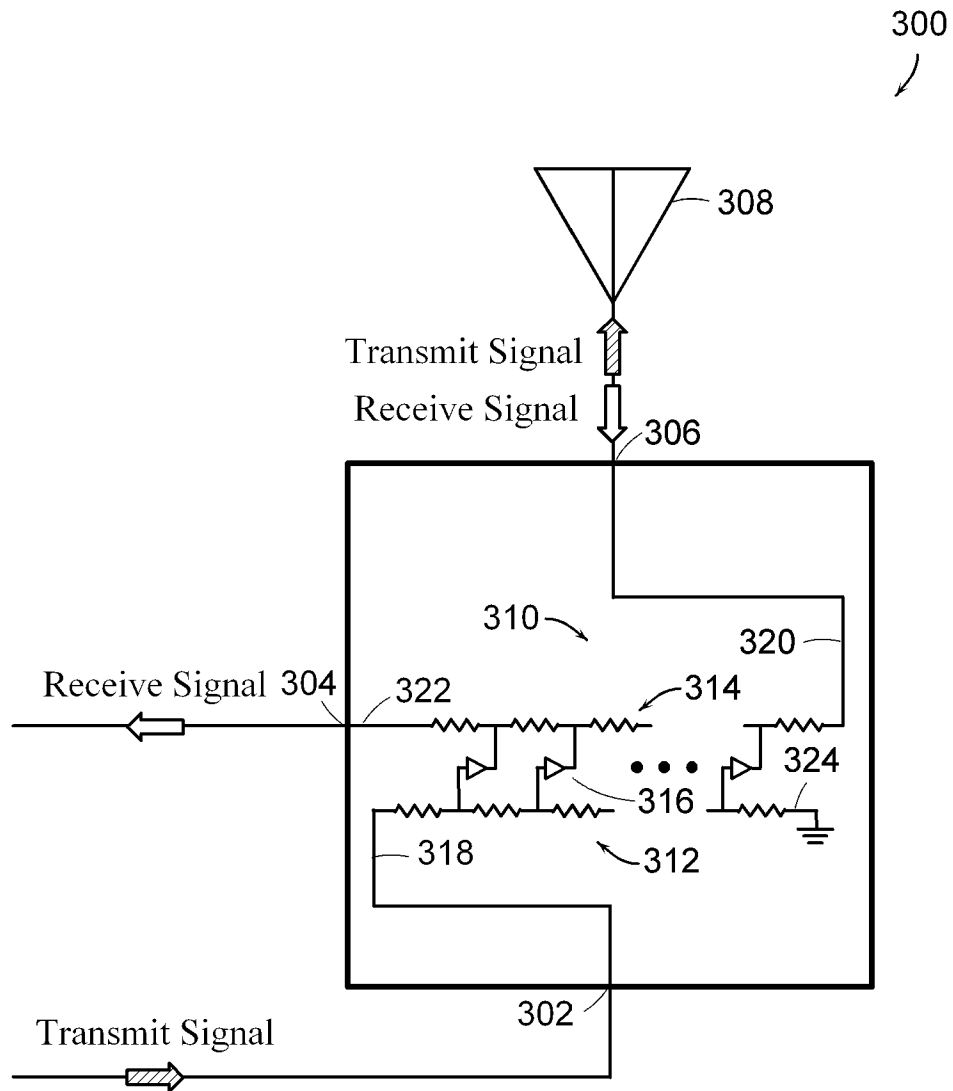


FIG. 3A

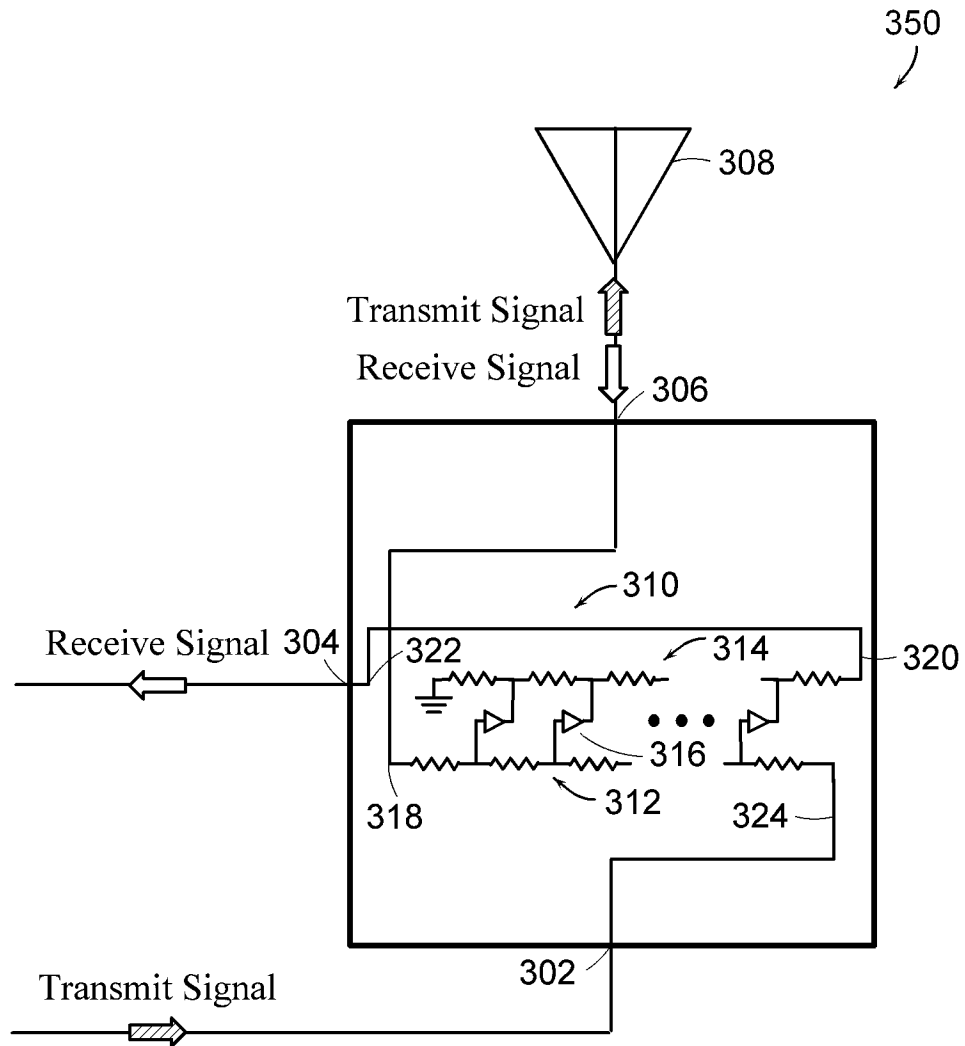


FIG. 3B

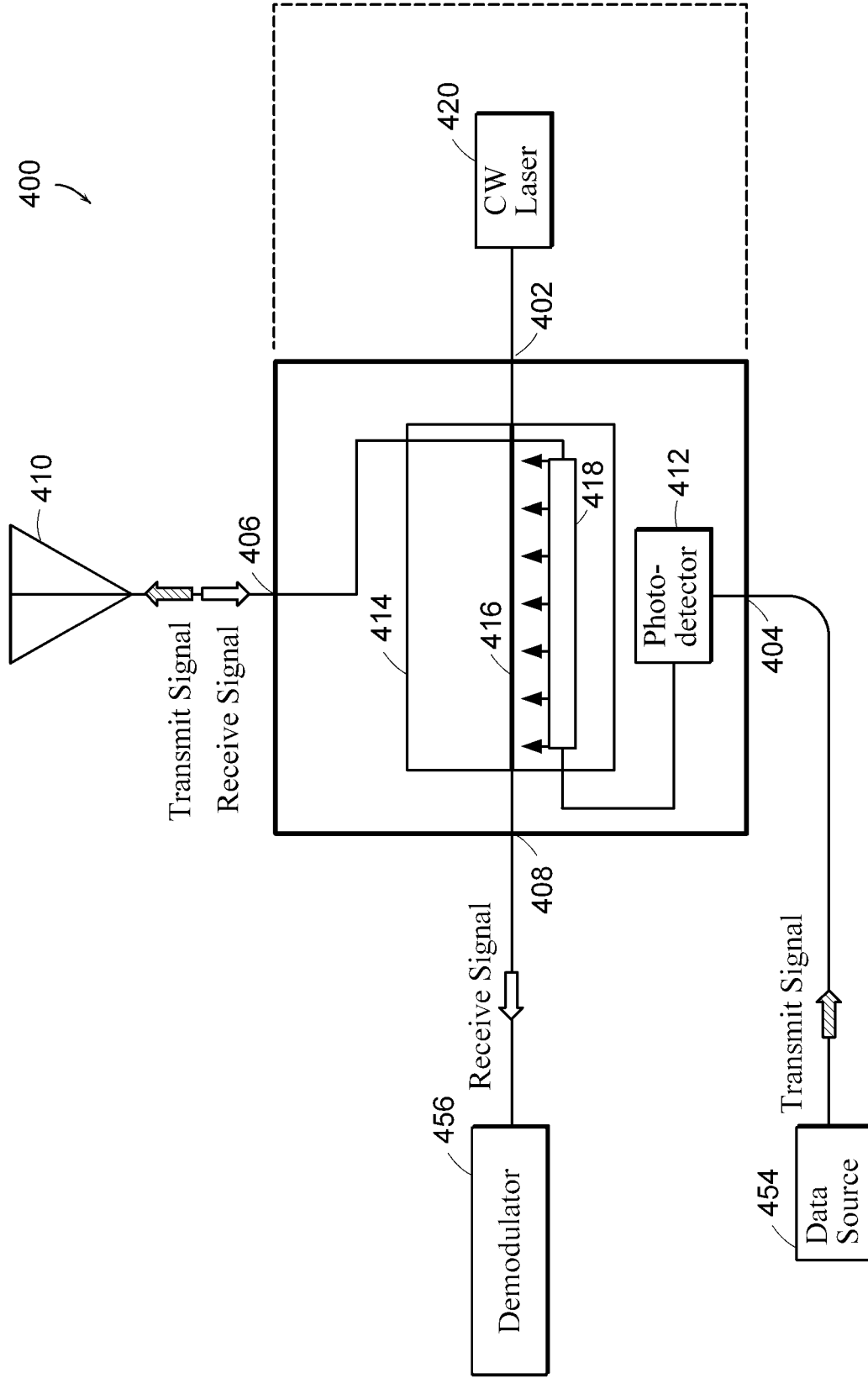


FIG. 4A

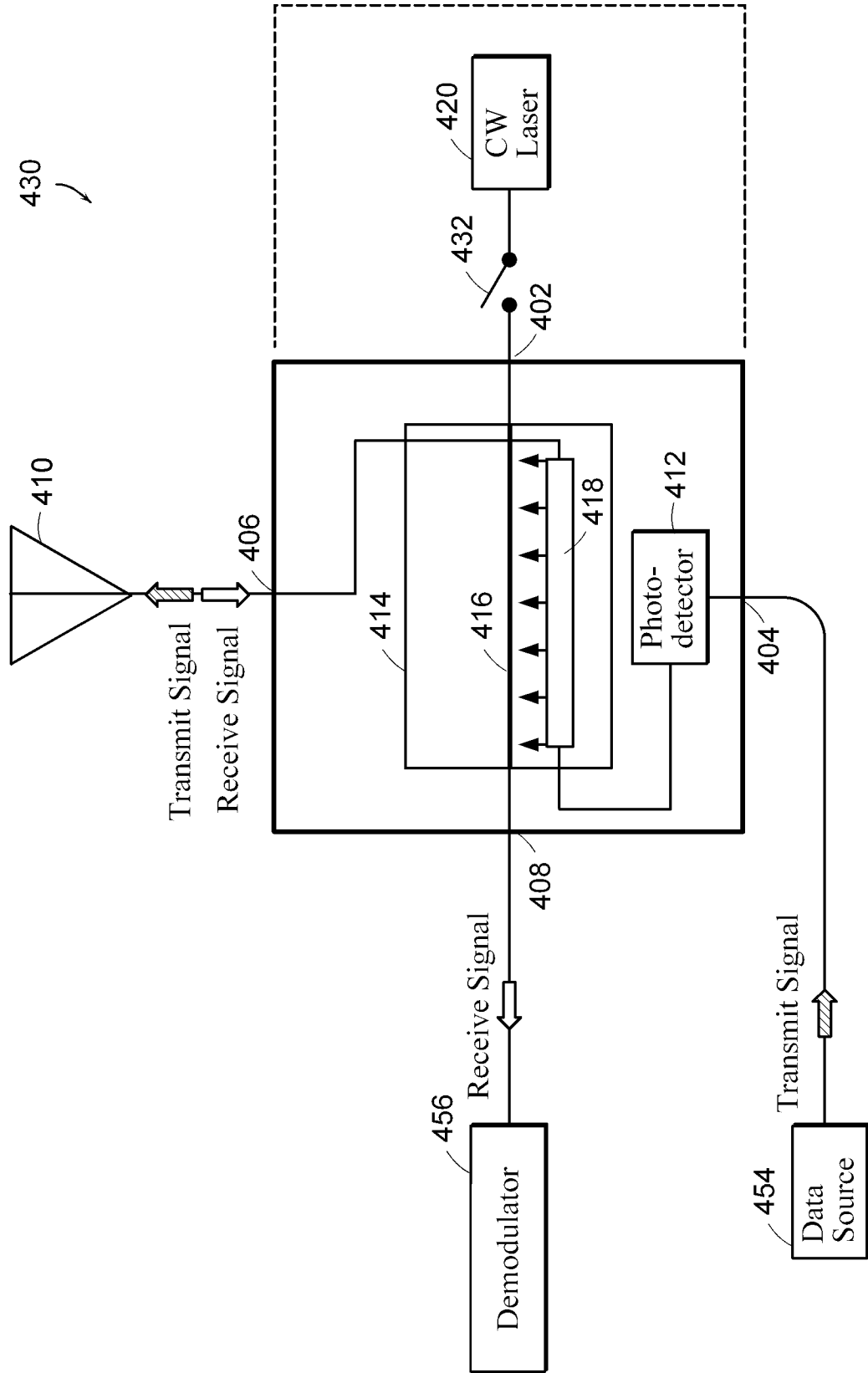


FIG. 4B

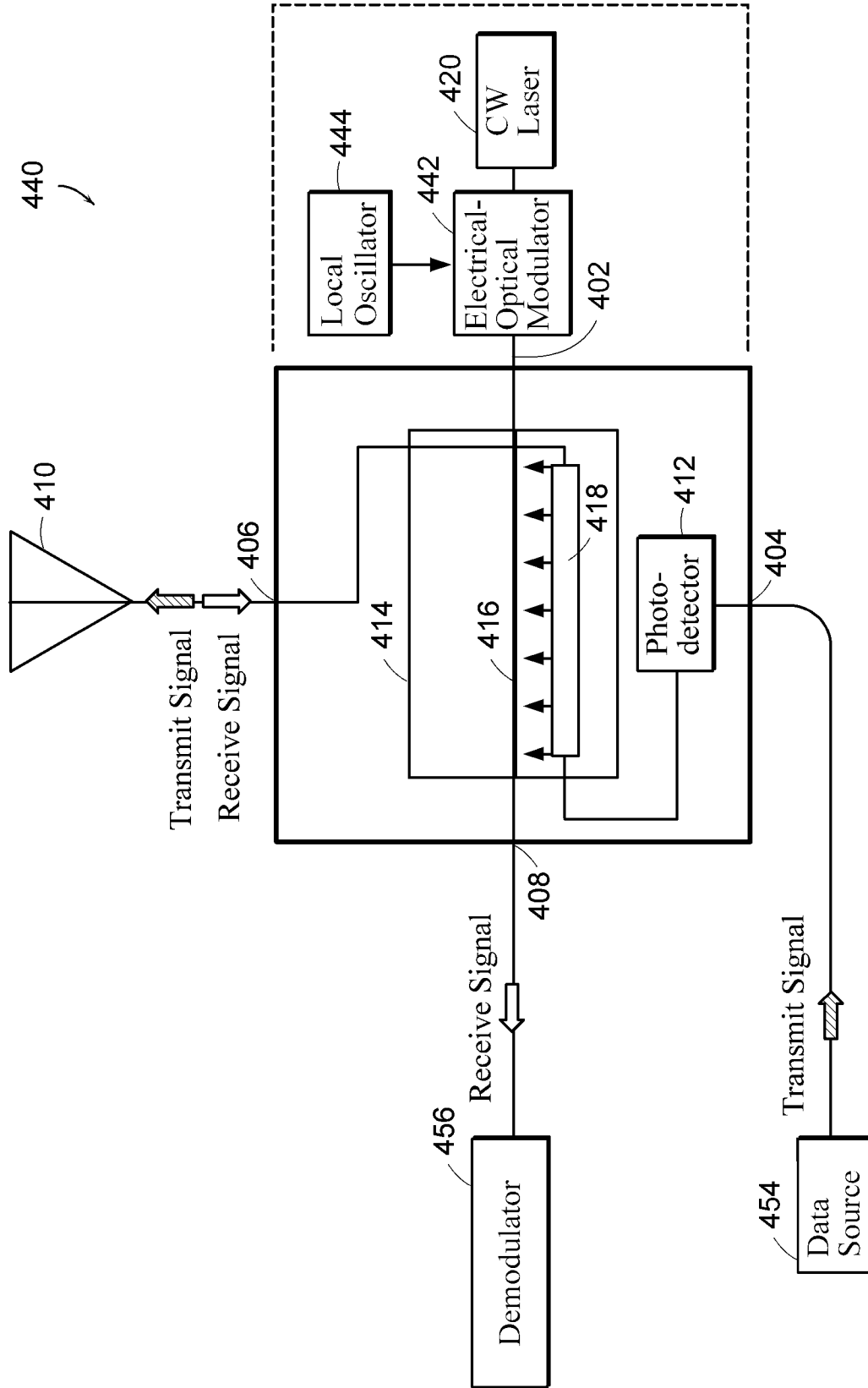


FIG. 4C

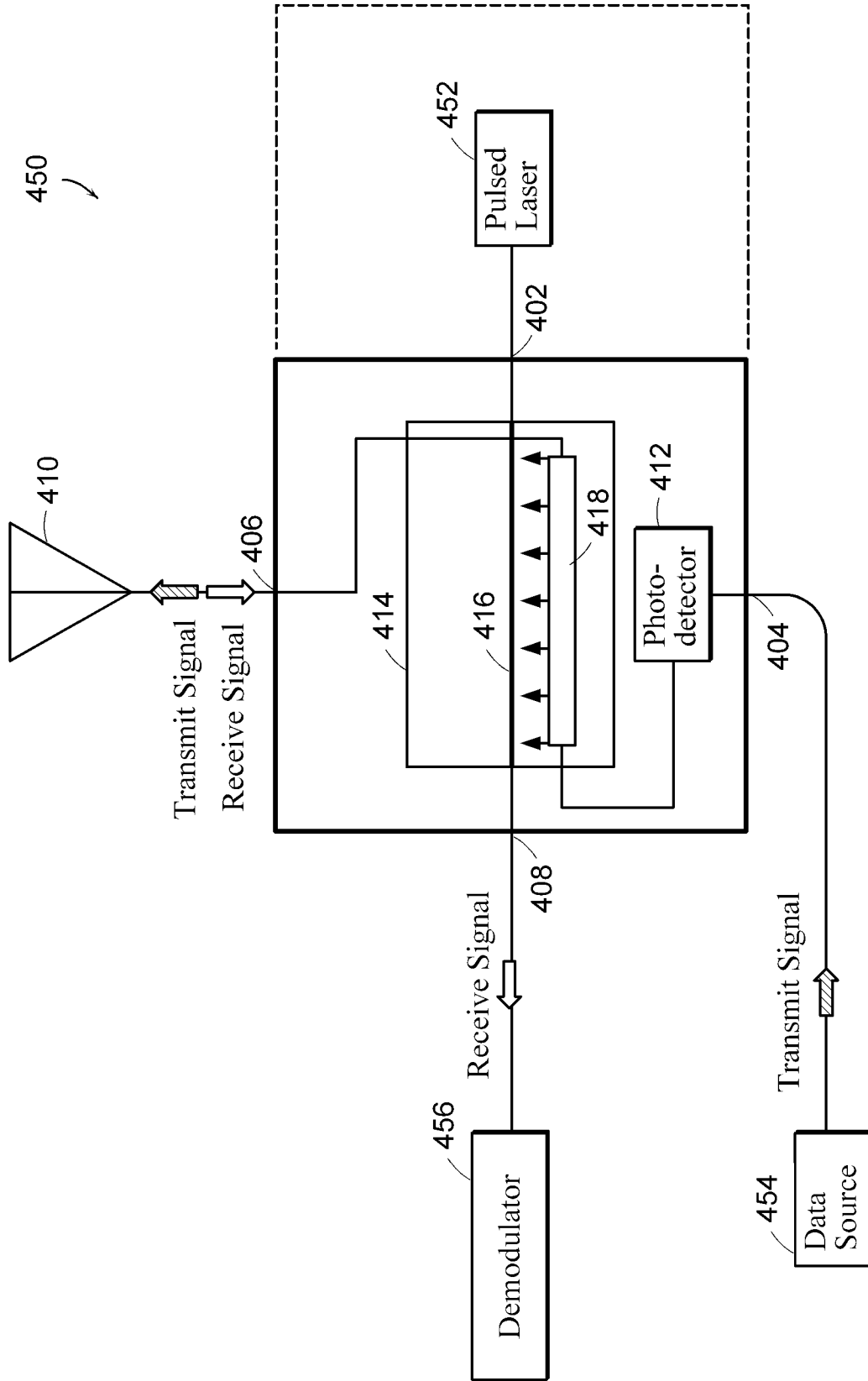


FIG. 4D

460)

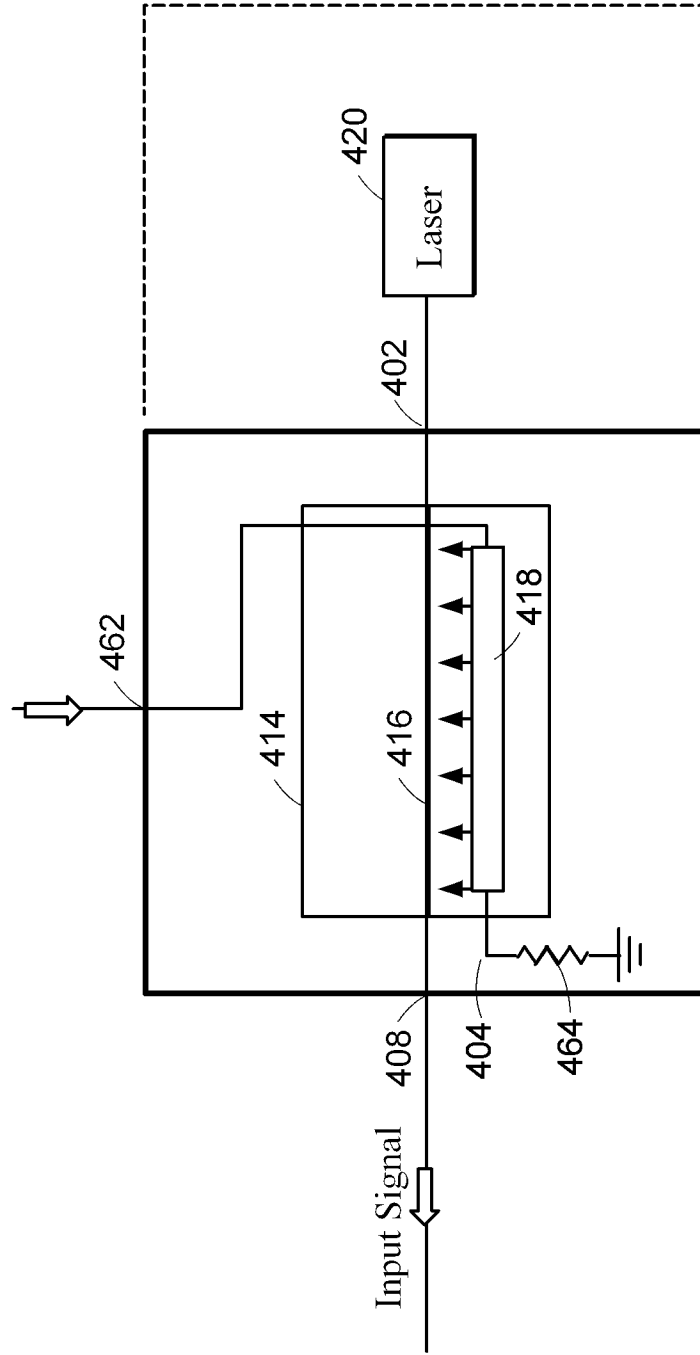


FIG. 4E

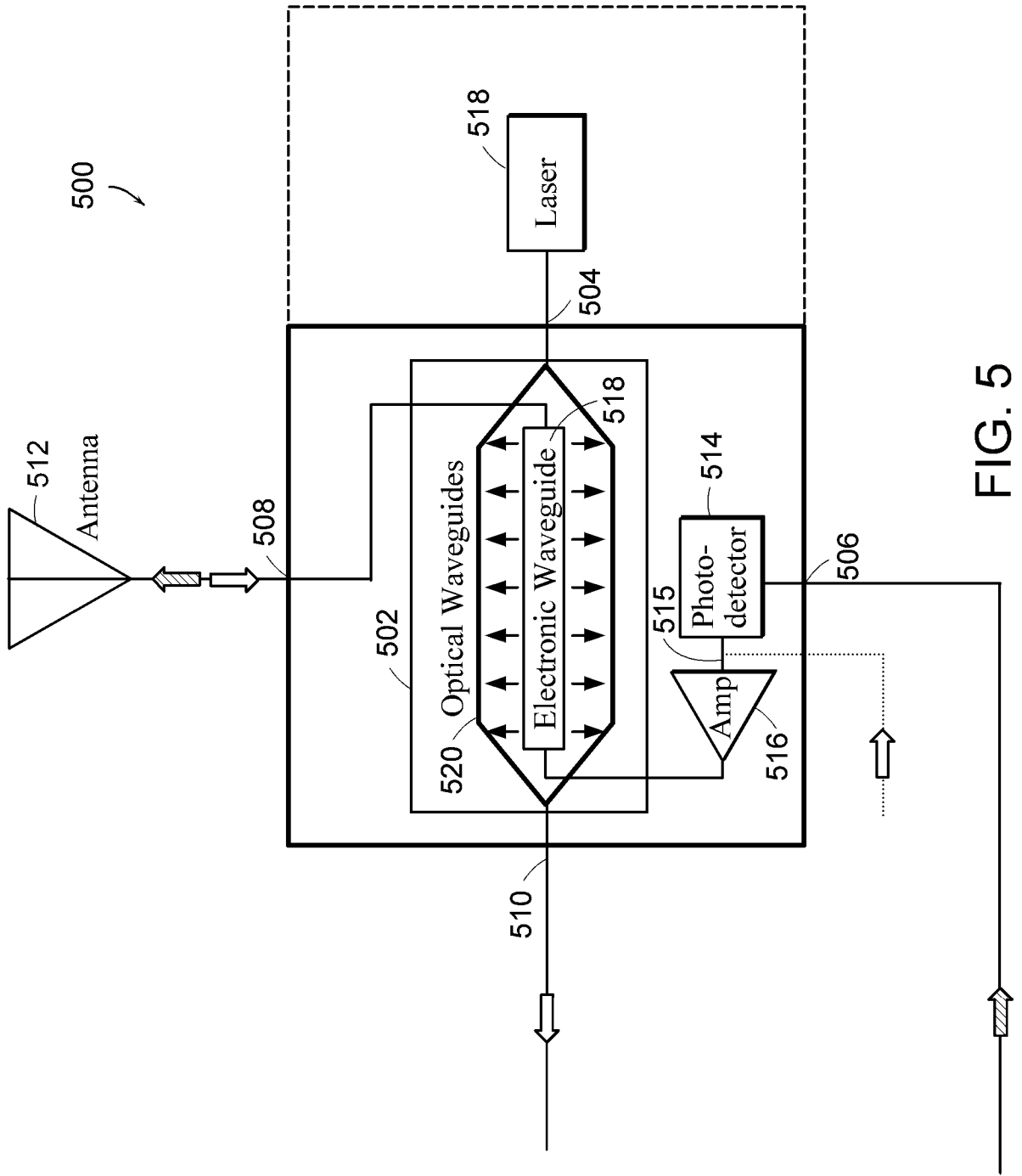


FIG. 5

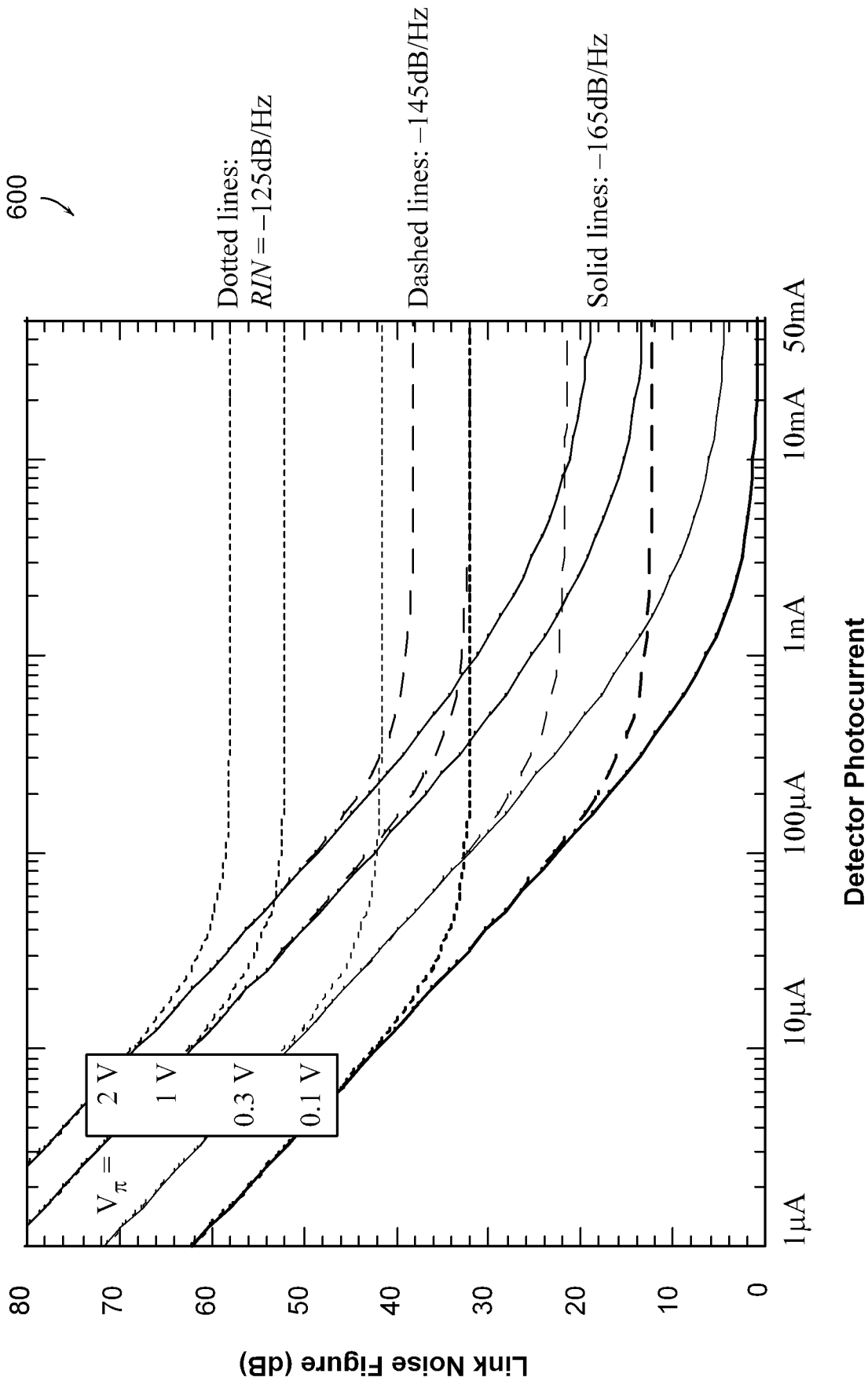


FIG. 6

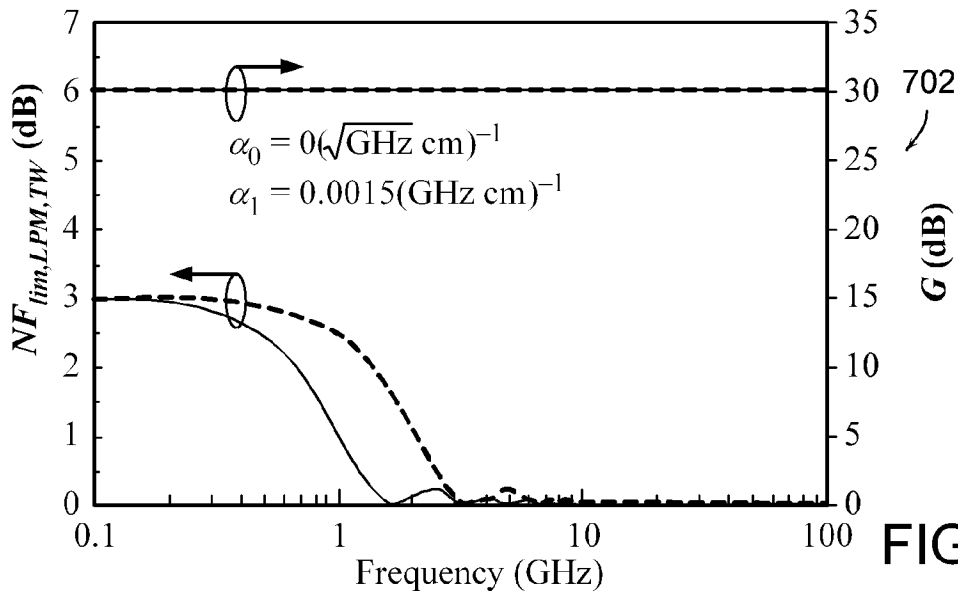


FIG. 7A

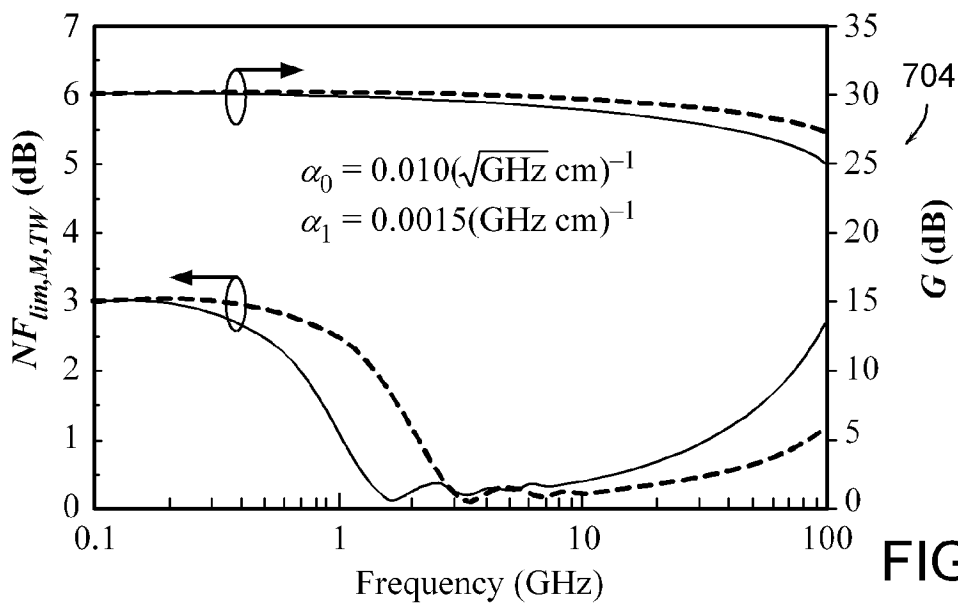


FIG. 7B

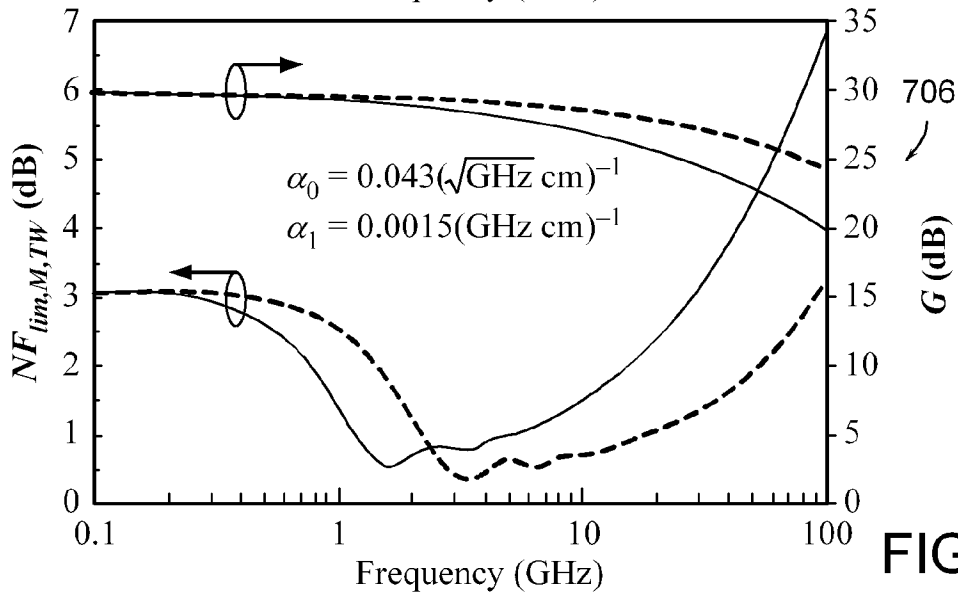


FIG. 7C